

Claims

- [c1] A method, comprising the steps of:
establishing a plurality of virtual machines;
establishing a plurality of partitions of processor time;
assigning each virtual machine of the plurality of virtual machines to a partition of the plurality of partitions;
running, on a single processor, each virtual machine during its assigned partition; and
determining whether a virtual machine has any action to perform during its assigned partition and will thus be inactive during its assigned partition.
- [c2] The method of claim 1, wherein at least one virtual machine of the plurality of virtual machines comprises a JAVA virtual machine.
- [c3] The method of claim 1, wherein the plurality of virtual machines comprises a plurality of JAVA virtual machines.
- [c4] The method of claim 1, wherein said assigning step takes into account results of prior determining steps in making assignments of virtual machines to partitions.
- [c5] The method of claim 1, further comprising the step of establishing a plurality of partitions of processor memory.
- [c6] The method of claim 1, further comprising the step of placing the single processor into a reduced power mode during a partition assigned to a virtual machine that has been determined to be inactive by said determining step.
- [c7] The method of claim 6, wherein at least one virtual machine of the plurality of virtual machines comprises a JAVA virtual machine.
- [c8] The method of claim 6, wherein the plurality of virtual machines comprises a plurality of JAVA virtual machines.
- [c9] The method of claim 6, wherein the reduced power mode is terminated at the end of the partition assigned to the inactive virtual machine.

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- [c10] The method of claim 1, further comprising the step of reassigning, to another virtual machine, a partition previously assigned to a virtual machine that has been determined to be inactive by said determining step.
- [c11] The method according to claim 10, wherein said reassigning step assigns a partition associated with an inactive virtual machine to the virtual machine assigned to the next partition.
- [c12] The method according to claim 10, wherein said reassigning step assigns a partition associated with an inactive virtual machine to the next occurring partition that has been assigned to a virtual machine determined not to be inactive.
- [c13] A computing apparatus, comprising:
 - a memory component storing code establishing a plurality of virtual machines, establishing a plurality of partitions of processor time, assigning each virtual machine of the plurality of virtual machines to a specific partition of the plurality of partitions, and determining whether a virtual machine has any action to perform during its assigned partition and will thus be inactive during its assigned partition;
 - a processor, coupled with said memory component, said processor being capable of running each virtual machine during its assigned partition and of running code stored on said memory component; and
 - wherein said memory component also stores code placing said processor into a lower power mode during a partition assigned to an inactive virtual machine.
- [c14] The apparatus according to claim 13, wherein said processor comprises an embedded, low power processor.
- [c15] The apparatus according to claim 13 wherein said processor comprises a JAVA processor.
- [c16] The apparatus according to claim 13, wherein said processor comprises an embedded, low power JAVA processor.

- [c17] The apparatus according to claim 13, wherein said processor comprises an aj-80 processor.
- [c18] The apparatus according to claim 13, wherein said processor comprises an aj-100 processor.
- [c19] A computing apparatus, comprising:
a memory component storing code establishing a plurality of virtual machines, establishing a plurality of partitions of processor time, assigning each virtual machine of the plurality of virtual machines to a specific partition of the plurality of partitions, and determining whether a virtual machine will be inactive during its assigned partition;
a processor, coupled with said memory component, to run each virtual machine during its assigned partition and to run code stored on said memory component; and
wherein said memory component also stores code activating a subsequent virtual machine during a partition assigned to an inactive virtual machine.
- [c20] A computing apparatus, comprising:
means for storing code establishing a plurality of virtual machines, establishing a plurality of partitions of processor time, assigning each virtual machine of the plurality of virtual machines to a specific partition of the plurality of partitions, and determining whether a virtual machine has any action to perform during its assigned partition;
means for processing, coupled with said means for storing, said means for processing running each virtual machine during its assigned partition and running code stored on said means for storing; and
wherein said means for storing also stores code placing said means for processing into a reduced power mode for the duration of a partition that has been determined to have an inactive virtual machine.
- [c21] A computing apparatus, comprising:
means for storing code establishing a plurality of virtual machines, establishing a plurality of partitions of processor time, assigning each virtual

- machine of the plurality of virtual machines to a specific partition of the plurality of partitions, and determining whether a virtual machine has any action to perform during its assigned partition;
- means for processing, coupled with said means for storing, said means for processing running each virtual machine during its assigned partition and running code stored on said means for storing; and
- wherein said means for storing also stores code reassigning, to another virtual machine, a partition previously assigned to a virtual machine that has been determined to be inactive.
- [c22] A computer-readable storage medium, comprising:
a computer-executable code for establishing a plurality of virtual machines, establishing a plurality of partitions of processor time, assigning each virtual machine of the plurality of virtual machines to a specific partition of the plurality of partitions, determining whether a virtual machine will be inactive during its assigned partition, and for activating a subsequently scheduled virtual machine for the duration of a partition that has been determined to have an inactive virtual machine.
- [c23] A computer-readable storage medium, comprising:
a computer-executable code for establishing a plurality of virtual machines, establishing a plurality of partitions of processor time, assigning each virtual machine of the plurality of virtual machines to a specific partition of the plurality of partitions, determining whether a virtual machine will be inactive during its assigned partition, and for activating a reduced power mode for the duration of a partition that has been determined to have an inactive virtual machine.
- [c24] A computer-readable storage medium, comprising:
a computer-executable code to establish a virtual machine schedule for activating a plurality of virtual machines, to determine whether a scheduled virtual machine will be inactive during its scheduled activation time, and to initiate a reduced power mode for the duration of an inactive virtual

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- machine's scheduled activation time.
- [c25] A computer-readable storage medium, comprising:
a computer-executable code to establish a virtual machine schedule for activating a plurality of virtual machines, to determine whether a scheduled virtual machine will be inactive during its scheduled activation time, and to initiate reassignment, to another virtual machine, of a partition previously assigned to a virtual machine that has been determined to be inactive.
- [c26] A method, comprising the steps of:
establishing a virtual machine schedule for activating, on a single processor, a plurality of virtual machines;
determining whether a scheduled virtual machine will be inactive during its scheduled activation time; and
initiating processor entry of a reduced power mode for the duration of an inactive virtual machine's scheduled activation time.
- [c27] A method, comprising the steps of:
establishing a virtual machine schedule for activating, on a single processor, a plurality of virtual machines;
determining whether a scheduled virtual machine will be inactive during its scheduled activation time; and
initiating reassignment of an inactive virtual machine's scheduled activation time to a virtual machine determined to be active.
- [c28] A method, comprising the steps of:
establishing a plurality of JAVA virtual machines;
establishing a plurality of partitions of processor time;
assigning each JAVA virtual machine of the plurality of JAVA virtual machines to a partition of the plurality of partitions;
running, on a single embedded low power JAVA processor, each JAVA virtual machine during its assigned partition;
determining whether a JAVA virtual machine to be run has any action to perform during its assigned partition and will thus be inactive during its

assigned partition;
placing the single embedded low power JAVA processor into a reduced power mode during a partition assigned to the JAVA virtual machine that has been determined to be inactive by said determining step; and exiting the reduced power mode at the end of the partition assigned to the inactive JAVA virtual machine and placing the single embedded low power JAVA processor into a higher power mode.